WHAT IS CLAIMED IS:

1. An electrical connector for operation in a point-to-point system architecture, comprising:

an insulated housing having first and second card interfaces configured to mate with associated first and second circuit cards;

an electrical wafer held in said housing and configured to operate in a point-to-point architecture, said wafer having first and second interfaces, said signal traces ending at input and output contact pads proximate said first and second interfaces, respectively, said input contact pads receiving an uni-directional signal, said output contact pads transmitting said uni-directional signal, said signal traces including a first break at an intermediate point along a length thereof to form a disconnect in said signal traces; and

an active compensation component bridging said first break in said signal traces, said active compensation component compensating said signal incoming from said input contact pads for signal degradation and transmitting an amplified, equalized signal outward to said output contact pads, said active compensation component transmitting said signal uni-directionally within the point-to-point architecture.

2. The electrical connector of claim 1, wherein said first and second card interfaces on said housing are oriented at right angles to one another.

3. The electrical connector of claim 1, wherein said first and second interfaces on said wafer are oriented at right angles to one another.

4. The electrical connector of claim 1, wherein said first and second card interfaces are configured to mate with a backplane and a daughter card.

5. The electrical connector of claim 1, wherein said wafer conveys a differential signal at a data rate of at least 5 Gigabits per second.

6. The electrical connector of claim 1, wherein said wafer conveys a differential signal at a data rate of at least 10 Gigabits per second.

7. The electrical connector of claim 1, wherein said active compensation component constitutes at least one of an equalizer and a signal repeater.

8. The electrical connector of claim 1, wherein said active compensation component includes pre-emphasis signal conditioning of said signal incoming from said input contact pads, said pre-emphasis signal conditioning increasing, within a band of frequencies, a magnitude of higher frequency components of said signal with respect to a magnitude of lower frequency components of said signal.

9. The electrical connector of claim 1, wherein said wafer includes a power contact pad located at said first interface and includes a power trace extending from said power contact pad to said active compensation circuit to provide power.

10. The electrical connector of claim 1, said wafer having first and second sides, wherein said active compensation component and a power contact pad are located on said first side, while a power trace is located on said second side, said power trace interconnecting said power contact pad and said active compensation component by through-holes extending through said wafer.

11. The electrical connector of claim 1, said wafer having first and second sides, wherein signal traces are located on said first side and a ground plane is located on said second side, said second side further including a power trace conveying power to said active compensation component.

12. The electrical connector of claim 1, wherein each of said signal traces including a second break at an intermediate point along a length thereof, said second breaks being separate and distinct from said first breaks, said connector further comprising passive signal compensation component bridging said second breaks.

13. The electrical connector of claim 1, further comprising a passive signal compensation component provided on said wafer along said signal traces and located between said active compensation component and said input contact pads, said passive signal conditioning component filtering said signal.

14. An electrical connector for operation in a point-to-point system architecture, comprising:

an insulated housing having a daughter card interface and a backplane interface configured to mate with an associated daughter card and backplane;

an electrical wafer held in said housing and configured to operate in a point-to-point architecture, said wafer having daughter card and backplane interfaces, said wafer having signal traces extending between input and output contact pads that are located proximate said daughter card interface and said backplane interface, said input contact pads receiving serial signals, said output contact pads transmitting said serial signals, said signal traces including a first break at an intermediate point along a length thereof to form a disconnect in said signal traces; and

an active compensation component bridging said first break in said signal traces, said active compensation component compensating said serial signals incoming from said input contact pads for signal degradation and transmitting compensated serial signals outward to said output contact pads, said active compensation component only transmitting said serial signals uni-directionally within the point-to-point architecture.

15. The electrical connector of claim 14, wherein said active compensation component includes pre-emphasis signal conditioning of said serial signals incoming from said input contact pads, said pre-emphasis signal conditioning increasing, within a band of frequencies, a magnitude of higher frequency components of said serial signals with respect to a magnitude of lower frequency components of said serial signals.

16. The electrical connector of claim 14, wherein said wafer includes a power contact pad located at one of said daughter card interface and backplane interface and includes a power trace

extending from said power contact pad to said active compensation component to provide power.

17. The electrical connector of claim 14, said wafer having first and second sides, wherein said active compensation component and a power contact pad are located on said first side and a power trace is located on said second side, said power trace interconnecting said power contact pad and said active compensation component by through-holes extending through said wafer.

18. The electrical connector of claim 14, said wafer having first and second sides, wherein signal traces are located on said first side and a ground plane is located on said second side, said second side further including a power trace conveying power to said active compensation component.

19. The electrical connector of claim 14, wherein each of said signal traces including a second break at an intermediate point along a length thereof, said second breaks being separate and distinct from said first breaks, said connector further comprising passive signal compensation components bridging said second breaks.

20. The electrical connector of claim 14, further comprising a passive signal conditioning component provided on said wafer along said signal traces and located between said active compensation component and said input contact pads, said passive signal conditioning component filtering said serial signals.